

### **ABSTRACT OF THE DISCLOSURE**

The present invention refers to the synthesis and application of 2,2,5,5-tetramethylpyrrolidine-N-oxyl-(9-fluorenylmethyloxycarbonyl)-3-amine-4-carboxylic acid, a novel paramagnetic amino acid derivative (spin label), denominated Fmoc-Poac. Fmoc-Poac can be coupled to peptide sequences and other molecules or systems. It can be inserted anywhere in a peptide segment, even at an internal position if necessary, after removal of its temporary amine protecting group, Fmoc. Owing to its pyrrolidine structure, this molecule may induce differentiated conformations as compared with normal  $\alpha$ -amino acids, thus being a valuable probe for structural-biological activity of several relevant peptides. The Poac-angiotensin II analogue was synthesized as a model according to its use as a chemical derivative.

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